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TITLE: Sputum Biomarkers to Improve CT Screening for the Early Detection of Lung Cancer in Veterans

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13. SUPPLEMENTARY NOTES
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14. ABSTRACT

We propose to develop a model for identifying lung cancer in indeterminate pulmonary nodules (PNs) by integrating biomarkers, radiographic features of PNs, and clinical variables of smokers. The project's specific aims are to (1) identify new sputum small noncoding RNA (ncRNA) biomarkers for lung cancer from the PI's previously next-generation sequencing (NGS)-defined small ncRNA profile of lung tumors, (2) validate the previously and newly identified biomarkers and develop a prediction model by integrating the biomarkers with clinical and imaging variables for identifying NSCLC, and (3) blindly validate the prediction model for distinguishing benign from malignant growths in a different cohort of patients with low-dose computed tomography (LDCT)–discovered PNs.
The IRB protocol prepared specially for this grant was finally approved by the local VA medical system and the University of Maryland Baltimore in the early of this year.
The IRB protocol was submitted to DoD. It now is reviewed.
Since the DoD has not approved the IRB yet, we have not started the research experiments. We will start the planed experiments as soon as the IRB is approved by DoD.

15. SUBJECT TERMS
Lung cancer, biomarkers, early detection

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Introduction,

The IRB protocol prepared specially for this grant was finally approved by the local VA medical system and the University of Maryland Baltimore in the early of this year. The IRB protocol was submitted to DoD. It is now reviewed. Additional materials are required for HRPO to complete the review of the protocol.
We are preparing the additional materials and will submit them soon.
Since the DoD has not approved the IRB yet, we have not started the research experiments. We will start the planed experiments as soon as the IRB is approved by DoD.

Keywords,

Lung cancer, Veterans, small non-coding RNA, biomarkers, diagnosis.

Accomplishments,

Since the DoD has not approved the IRB yet, we have not started the research experiments. We will start the planed experiments as soon as the IRB is approved by DoD.

Impact,

No

Changes/problems, No.

Products,

No.

Participants and other collaborating organizations,

The Veterans Affairs Maryland Health Care System

The University of Maryland School of Medicine

Special reporting requirements,

No.

Appendices.

No.